



Customer information

TINGO as a business unit of TRG Cyclamin GmbH, manufactures modifiers for polymers. We are specialized in components for polyurethane resins, epoxy resins and rubber formulations, in particular modifiers for

- viscosity adjustment,
- elastification, and
- hydrophobic modification.

Our products are successful substitutes for hazardous chemicals, like polycyclic aromatic hydrocarbons (PAHs). End products are thus adapted to meet today's market requirements and those of the future.

In our development of new products, we cater to the specific demands of our customers. Our well-balanced formulations and additives simplify the final formulations of resins systems.

Quality and Environment:

TINGO is part of the integrated quality and environmental management system of TRG Cyclamin GmbH in compliance with:

DIN EN ISO 9001, DIN EN ISO 14001 and Regulation (EC) 1221/2009 (EMAS III)

TINGO modifiers PU (Tingolen) - Modifiers for polyurethane-systems (isocyanates)

Non-hazardous/non-classified components for polyurethane formulations (also for epoxy formulations)

- Viscosity adjustment
- Hydrophobic modification
- Improve corrosion protection (rust protection) and concrete protection
- High boiling range and very low volatility

Product	Viscosity [mPas] (20°C)	Density [g/cm ³] (20°C)	Colour (Gardner)	Aromaticity 1)	Polarity	Odour
Tingolen C1/ 5-10	5-10	0,91	1	o	-	very low
Tingolen 5230	6-10	0,90	≤ 5	o	-	very low
Tingolen 59	10-25	0,94	≤ 8	++	-	very low
Tingolen 29-38	26-35	0,93	≤ 8	+	-	very low
Tingolen 65	39-48	0,91	≤ 8	+	-	very low

1) Aromaticity: o < 50 %, + < 55 %, ++ 55 - 70 %

Packing: 180 kg/steel drum, 900 kg/IBC. Delivery in other forms can be discussed.

TINGO modifiers E- Modifiers for epoxysystems

Non-hazardous/non-classified components for epoxy formulations

- Viscosity adjustment
- Hydrophobic modification
- Improve corrosion protection (rust protection)

Product	Viscosity [mPas] (20°C)	Density [g/cm ³] (20°C)	Colour (Gardner)	Aromaticity (1)	Polarity	Odour
Tingolen C1/ 5-10	5-10	0,91	1	o	-	very low
Tingolen 5230	6-10	0,90	≤ 5	o	-	very low
TINGO modifier 72	20-40	0,945 -0,975	≤ 5	++	++	very low
TINGO modifier 63	50-85	0,99-1,15	≤ 4	++	+++	very low
TINGO modifier RT 4131-black	600-900	0,96-0,98	black	++	+	very low
TINGO modifier RT 4131	1700-2200	0,99 -1,06	≤ 18	+++	++	very low
TINGO modifier RT 4233-black	1800-2300	0,96 -0,98	black	++	+	very low
TINGO modifier 10-3000	2500-3500 (25°C)	1,00 -1,10	≤ 18	+++	++	very low

1) Aromaticity: o < 50 % 2)

+ < 55 %

++ 55 - 70 %

+++ 70 - 80 %

Polarity (%OH): + < 1,5 %

++ 1,5 - 2,5 %

+++ 2,5 - 3,5 %

Tingolen 5230 / Tingolen C1/5-10

Thinner. Viscosity modifier. Hydrophobic modifier, also for polyurethane systems (isocyanate). Non-reactive with epoxy resins and curing agents of epoxy systems
Packing: 180 kg/steel drum; 900 kg/IBC

TINGO modifier 72 /TINGO modifier 63

Hydrophobic modifier. Softener. Improve corrosion protection (rust protection) and concrete protection. Tackifier for adhesives. Non-reactive with epoxy resins and curing agents of epoxy systems. Packing: 180 kg/steel drum; 900 kg/IBC

TINGO modifier RT 4131-black / TINGO modifier RT 4233-black

To use in black coloured formulations as replacement for coal tar and pitch. Tackifier. Hydrophobic modifier. Improve corrosion protection (rust protection) and concrete protection. Non-reactive with epoxy resins and curing agents of epoxy systems
Packing: 200 kg/steel drum

TINGO modifier RT 4131 / TINGO modifier 10-3000 :

Hydrophobic modifier. Improve corrosion protection (rust protection) and concrete protection. Non-reactive with epoxy resins and curing agents of epoxy systems.
Packing: 200 kg/steel drum